- 1. Which of the following vessels has the thickest muscular walls that allow constriction and dilation?
 - a. Arteries
 - b. Capillaries
 - c. Veins
 - d. Lymphatic vessels
- 2. In which of the following vessels does the vital exchange take place and also has the thinnest walls through which oxygen, nutrients, and wastes can pass?
 - a. Capillaries
 - b. Microvenules
 - c. Arterioles
 - d. Veins
- 3. Which of the following types of vessels have valves to maintain one-way blood flow?
 - a. Arteries
 - b. Capillaries
 - c. Veins
 - d. Arterioles
- 4. Which of the following vessels contain blood under the highest amount of pressure?
 - a. Veins
 - b. Arteries
 - c. Venules
 - d. Capillaries
- 5. Which of the following BEST describes the function of blood?
 - a. It is a life-giving liquid that supports all the body's functions to maintain hypoperfusion.
 - b. It clots, flows, transports, protects, and excretes to fight disease and life.
 - c. It transports gases along with nutrients, aids in excretion, and provides protection and regulation.
 - d. It flows from the heart with the vital gases and nutrients to maintain lack of perfusion.
- 6. Which of the following BEST describes the delivery of oxygen and nutrients at the body's cellular level?
 - a. Hydrostatic pressure
 - b. Perfusion
 - c. Osmosis
 - d. Circulation
- 7. Which of the following is another way of describing the condition of shock?
 - a. Internal bleeding
 - b. Hypotension
 - c. Hypoperfusion
 - d. Hemorrhage
- 8. Which of the following is the major cause of shock that the EMT will encounter?
 - a. Vomiting
 - b. High blood pressure
 - c. Hemorrhage
 - d. Excessive sweating
- 9. Your patient is a 6-year-old child who has fallen down while running on a sidewalk. She has abrasions on both knees and the palms of both hands, which are oozing blood. This is an example of bleeding from which of the following types of vessels?
 - a. Veins
 - b. Arteries
 - c. Lymphatic vessels
 - d. Capillaries

10. Which of the following is a characteristic of arterial bleeding?

- a. Steady flow
- b. Dark red color
- c. Spurting under pressure
- d. Both B and C
- 11. In the average adult, the sudden loss of _____ cc of blood is considered serious.
 - a. 150
 - b. 500
 - c. 1,000
 - d. 750

12. Which of the following is a characteristic of venous bleeding?

- a. It commonly requires the use of pressure point compression.
- b. It can be profuse, but is generally easily controlled.
- c. It cannot lead to life-threatening amounts of blood loss.
- d. It often requires the use of a tourniquet.

13. Which of the following may occur when there is bleeding from a large vein?

- a. Transmission of bloodborne illnesses
- b. Air embolism
- c. Hypoperfusion
- d. All of the above

14. Which of the following must be kept in mind when considering the severity of external bleeding?

- a. Signs of shock do not appear until a large amount of blood has been lost.
- b. The amount of blood loss is easily estimated by the amount of blood visible on the ground.
- c. A younger person can tolerate more blood loss than an older one.
- d. All of the above

15. Which of the following is the most important reason for controlling external bleeding?

- a. To prevent hypoperfusion
- b. To prevent the spread of infectious diseases
- c. To make clean up of the ambulance and your equipment easier after the call
- d. To prevent the patient from becoming upset at the sight of blood

16. Which of the following is the most effective way of controlling external bleeding?

- a. Running cold water over the wound
- b. Using direct pressure with a dressing
- c. Elevating the affected part
- d. Using an ice pack

17. Your patient is a 28-year-old male who cut his thigh with a chain saw. It appears that he has lost about 600 cc of blood. Which of the following is NOT part of the proper management of this patient?

- a. Use of a tourniquet
- b. Replacement of fluid level by giving the patient adequate amounts of water
- c. Using direct pressure to control the bleeding
- d. Administering oxygen

- 18. Your patient is a 12-year-old boy who ran his arm through a glass window and has an 8-inch laceration on his anterior forearm. You have applied a pressure dressing and bandage, but these have become saturated due to continued bleeding. Which of the following should you do now?
 - a. Remove the pressure dressing and bandage, apply an ice pack to the wound, and bandage it in place with an elastic bandage.
 - b. Elevate that arm and prepare to apply a tourniquet or consider administering a hemostatic agent.
 - c. Apply additional dressing material, bandage it in place, and apply pressure to the brachial artery.
 - d. Remove the pressure dressing and bandage, apply direct pressure with your gloved hand, and elevate the arm.

19. If you do not have a commercial tourniquet available, what common device found on the ambulance can be used as a substitute?

- a. Air or vacuum splint
- b. Blood pressure cuff
- c. Ice packs tied in place with triangle bandage
- d. Use a rope tie-down to make a tourniquet

20. The most common form of a hemostatic agent is:

- a. hemostatic granular.
- b. hemostatic dressings.
- c. hemostatic tourniquet.
- d. hemostatic powder.

21. In which of the following instances would PASG be an appropriate choice to control bleeding?

- a. Multiple lacerations to the lower extremities
- b. A knife impaled in the abdomen
- c. A laceration of the large veins of the neck
- d. A gunshot wound to the chest

22. Which of the following is recommended in situations in which a tourniquet must be used?

- a. Apply a bulky dressing and bandage over the tourniquet.
- b. Apply the tourniquet over the elbow or knee.
- c. Use a material that is wide and thick.
- d. Remove the tourniquet as soon as bleeding is controlled to minimize further damage to the limb.

23. Which of the following is NOT recommended when controlling epistaxis?

- a. Pinching the nostrils together
- b. Keeping the patient calm and quiet
- c. Having the patient tilt the head backward to elevate the nose
- d. Placing the unconscious patient in the recovery position

24. Which of the following is responsible for most of the signs and symptoms of early shock?

- a. External bleeding
- b. Internal bleeding
- c. Dilation of the peripheral blood vessels
- d. The body's attempts at compensation for blood loss

- 25. Your patient is a 19-year-old motorcyclist who has crashed into a parked car and was ejected from his motorcycle. He was wearing a helmet; he is awake, shivering, and anxious. The patient is pale, with slight cyanosis of his lips, a slightly increased respiratory rate, and a rapid, thready radial pulse. Bystanders state that there was no loss of consciousness. The patient has abrasions to his hands and face, and blood is saturating the thigh area of both legs of his jeans. A rapid trauma assessment reveals that the patient has swelling and deformity of both thighs. Which of the following is NOT appropriate in the on-scene management of this patient?
 - a. The use of a long backboard
 - b. The use of traction splinting for the lower extremity injuries
 - c. The use of PASG
 - d. The use of high-concentration oxygen by nonrebreather mask
- 26. When deciding where to transport a patient who is in hypovolemic shock or who has the potential for developing hypovolemic shock, which of the following is the most important service to be provided by the receiving hospital?
 - a. Critical-care nursing
 - b. Immediate surgical capabilities
 - c. Availability of a chaplain
 - d. Rehabilitation services
- 27. Which of the following circumstances may result in hypoperfusion?
 - a. There is external bleeding.
 - b. Blood vessels are dilated.
 - c. The heart is damaged.
 - d. All of the above
- 28. Which of the following is a consequence of hypoperfusion?
 - a. Cellular waste products are not removed.
 - b. Cells are not supplied with nutrients.
 - c. Cells are not supplied with oxygen.
 - d. All of the above
- 29. Your patient is a 33-year-old man who has a gunshot wound to his right leg and has active, steady, dark red bleeding. He is awake, pale, and diaphoretic. He has a strong radial pulse of 112 per minute, a respiratory rate of 24 breaths per minute, and a blood pressure of 122/82 mmHg. He has no other injuries or complaints. Which of the following is the BEST sequence of steps in the management of this patient?
 - a. High-concentration oxygen, elevation of the extremity, and application of ice
 - b. Cervical spine immobilization, high-concentration oxygen, direct pressure, and pressure point compression
 - c. High-concentration oxygen, tourniquet, PASG, and elevation of the extremity
 - d. Direct pressure, high-concentration oxygen, and splinting the leg
- 30. Which of the following is part of the body's compensatory response to blood loss?
 - a. Blood vessels constrict and the heart rate increases.
 - b. Blood vessels dilate and the heart rate increases.
 - c. Blood vessels dilate and the heart rate decreases.
 - d. Blood vessels constrict and the heart rate decreases.
- 31. Which of the following signifies a failure in the patient's compensatory response to blood loss?
 - a. Hypotension
 - b. Tachycardia
 - c. Tachypnea
 - d. Pale, cool skin

32. Which of the following is the most sensitive indicator of hypoperfusion?

- a. Delayed capillary refill
- b. Dilation of the pupils
- c. Increased heart rate
- d. Altered mental status

33. Which of the following distinguishes irreversible shock from other stages of shock?

- a. Cell damage and death in the vital organs
- b. Altered mental status
- c. Delayed capillary refill time
- d. Low blood pressure

34. Which of the following is NOT indicated in the management of a patient in shock?

- a. Minimizing on-scene time
- b. Delaying a detailed exam until en route to the hospital
- c. High-speed ambulance transportation
- d. On-scene spinal precautions, if indicated

35. For which of the following shock patients would the use of PASG be contraindicated?

- a. A 50-year-old man whose pelvis has been crushed by a forklift
- b. A 7-year-old male with massive soft-tissue loss of the left thigh from a shark bite
- c. A 70-year-old female who is vomiting blood and has crackles in her lungs
- d. A 23-year-old pregnant woman with obvious fractures of both femurs

36. The use of PASG is NOT advised for which of the following injuries?

- a. External bleeding of the lower extremities
- b. Pelvic fracture
- c. Gunshot wound to the chest
- d. Internal bleeding to the lower extremities

37. Which of the following is the purpose of making airway management the highest priority of patient care when managing the patient in shock?

- a. It allows for oxygenation of the lungs.
- b. It allows for improved elimination of carbon dioxide.
- c. It minimizes the chances of aspiration of blood or vomit.
- d. All of the above

38. Which of the following should increase the EMT's suspicion of internal bleeding?

- a. Penetrating trauma to the chest or abdomen
- b. High-speed motor vehicle collision
- c. Fall from a height two or more times the patient's height
- d. All of the above

Which of the following BEST explains the reason for minimizing scene-time for the trauma patient with significant hemorrhage or the potential for significant hemorrhage?

- a. There is nothing the EMT can do for a patient in shock.
- b. It gives the EMT less opportunity to make mistakes in the patient's care.
- c. Studies have indicated that trauma patients who receive surgery within 1 hour of injury have better chances of survival.
- d. All of the above

40. Which of the following will worsen the condition of the patient in shock?

- a. Applying high-concentration oxygen when it is not needed
- b. Elevating the patient's legs 8 to 10 inches
- c. Conducting oneself in a manner that increases the patient's fear and anxiety
- d. Transporting without first splinting all extremity fractures

- 41. The adequate circulation of blood throughout the body, which fills the capillaries and supplies the cells and tissues with oxygen and nutrients, is called:
 - a. bleeding.
 - b. perfusion.
 - c. hypoperfusion.
 - d. hemorrhaging.
- 42. External bleeding may be classified according to types. Which one of the following is one of those types?
 - a. Cardiac bleeding
 - b. Brain bleeding
 - c. Capillary bleeding
 - d. Liver bleeding
- 43. Which of the following is the *least* effective method of controlling bleeding?
 - a. Direct pressure
 - b. Elevation
 - c. Tourniquet
 - d. Hemostatic agent
- 44. Which one of the following is incorrect in the application of a tourniquet?
 - a. The tourniquet should be placed approximately 2 inches above the bleeding.
 - b. The tourniquet should be 2 to 4 inches wide.
 - c. A blood pressure cuff can be used as a tourniquet.
 - d. If possible, the tourniquet should be placed on a joint.
- 45. Cold is sometimes used to help control bleeding. When using cold, the following guidelines and statements are true *except:*
 - a. it should not be used alone but rather in conjunction with other manual techniques.
 - b. it should be applied directly to the skin; it will not be effective if anything is between the cold agent and the wound.
 - c. it should not be left in place for more than 20 minutes.
 - d. it will reduce pain.
- 46. As an EMT, your best clue indicating the possibility of internal bleeding may be the presence of:
 - a. a tender, rigid, or distended abdomen.
 - b. painful, swollen, or deformed extremities.
 - c. mechanism of injury.
 - d. bruising, swelling, or pain over vital organs.
- 47. Which of the following is *not* part of the circulatory system?
 - a. Heart
 - b. Brain
 - c. Blood vessels
 - d. Blood
- 48. Which of the following is *not* a classification of the severity of shock?
 - a. Compensated
 - b. Decompensated
 - c. Irreversible
 - d. Uncompensated

- 49. Shock is the circulatory system's failure to provide sufficient blood and oxygen to all the body's tissues. Which of the answers is *not* a major type of shock?
 - a. Hypovolemic
 - b. Hemorrhagic
 - c. Hypervolemic
 - d. Cardiogenic
- 50. Although many of the signs and symptoms of shock are the same no matter what the cause, the symptoms follow a logical progression as shock develops and worsens. Arrange the following signs and symptoms in the likely order that they will appear.
 - 1) Altered mental status
 - 2) Dropping blood pressure
 - 3) Nausea and vomiting
 - 4) Pale, cool, and clammy skin
 - 5) Increased pulse
 - 6) Increased respirations
 - a. 1, 4, 3, 6, 5, 2
 - b. 2, 5, 6, 3, 4, 1
 - c. 1, 3, 4, 5, 6, 2
 - d. 5, 3, 4, 2, 6, 1
- 51. Which of the following statements is *not* true when you are on-scene and treating a patient that appears to be in shock?
 - a. It is important to spend on-scene time to be sure you have corrected and dealt with any of the causes of the shock so that it does not get worse. This is more important than rapid transport.
 - b. The patient should be promptly put on high-concentration oxygen.
 - c. Airway management is of top priority.
 - d. Prompt transportation is a very high priority.
- 52. Which of the following statements is correct when talking about neurogenic shock?
 - a. Neurogenic shock is sometimes caused by spinal injuries.
 - b. Neurogenic shock is the result of the blood vessels decreasing in size.
 - c. Neurogenic shock is caused by the blood vessels overfilling with blood, causing leaking into the nerves.
 - d. Neurogenic shock is very common in the field.
- 53. Oftentimes an EMT is called upon to treat a nose bleed (epistaxis). All of the following are correct ways to treat a nose bleed *except*
 - a. have the patient sit down and lean backwards.
 - b. apply direct pressure to the fleshy portion around the nostrils.
 - c. keep the patient calm.
 - d. place the patient in the recovery position if the patient becomes unconscious or is unable to control his own airway.
- 54. You will frequently be called upon to deal with internal bleeding. Blunt trauma is the leading cause of internal injuries and bleeding. Which of the following are mechanisms of blunt trauma that may cause internal bleeding?
 - 1. Falls
 - 2. Motor vehicle or motorcycle crashes
 - 3. Auto-pedestrian collisions
 - 4. Blast injuries
 - a. 1, 2, 3
 - b. 2, 3
 - c. 1, 2, 3, 4
 - d. 1, 4

- 55. Limiting time spent at a scene can be especially important if the mechanism of injury suggests that the patient could go into shock. In order to keep the time at the scene to a minimum, which of the following assessments or treatments should *not* be performed on the scene?
 - a. ABCs with spinal precautions
 - b. Immobilization
 - c. Rapid trauma exam
 - d. Splinting swollen extremities

Test Name: Mod 8 Bleeding & Shock

- 1. a. Arteries
- 2. a. Capillaries
- 3. c. Veins
- 4. b. Arteries
- 5. c. It transports gases along with nutrients, aids in excretion, and provides protection and regulation.
- 6. b. Perfusion
- 7. c. Hypoperfusion
- 8. c. Hemorrhage
- 9. d. Capillaries
- 10. c. Spurting under pressure
- 11. c. 1,000
- 12. b. It can be profuse, but is generally easily controlled.
- 13. d. All of the above
- 14. a. Signs of shock do not appear until a large amount of blood has been lost.
- 15. a. To prevent hypoperfusion
- 16. b. Using direct pressure with a dressing
- 17. b. Replacement of fluid level by giving the patient adequate amounts of water
- 18. b. Elevate that arm and prepare to apply a tourniquet or consider administering a hemostatic agent.
- 19. b. Blood pressure cuff
- 20. b. hemostatic dressings.
- 21. a. Multiple lacerations to the lower extremities
- 22. c. Use a material that is wide and thick.
- 23. c. Having the patient tilt the head backward to elevate the nose
- 24. d. The body's attempts at compensation for blood loss
- 25. b. The use of traction splinting for the lower extremity injuries
- 26. b. Immediate surgical capabilities
- 27. d. All of the above
- 28. d. All of the above
- 29. d. Direct pressure, high-concentration oxygen, and splinting the leg
- 30. a. Blood vessels constrict and the heart rate increases.
- 31. a. Hypotension
- 32. d. Altered mental status
- 33. a. Cell damage and death in the vital organs
- 34. c. High-speed ambulance transportation
- 35. c. A 70-year-old female who is vomiting blood and has crackles in her lungs
- 36. c. Gunshot wound to the chest
- 37. d. All of the above
- 38. d. All of the above
- 39. c. Studies have indicated that trauma patients who receive surgery within 1 hour of injury have better chances of survival.
- 40. c. Conducting oneself in a manner that increases the patient's fear and anxiety
- 41. b. perfusion.
- 42. c. Capillary bleeding
- 43. b. Elevation
- 44. d. If possible, the tourniquet should be placed on a joint.
- 45. b. it should be applied directly to the skin; it will not be effective if anything is between the cold agent and the wound.
- 46. c. mechanism of injury.
- 47. b. Brain
- 48. d. Uncompensated
- 49. c. Hypervolemic
- 50. a. 1, 4, 3, 6, 5, 2
- 51. a. It is important to spend on-scene time to be sure you have corrected and dealt with any of the causes of the shock so that it does not get worse. This is more important than rapid transport.
- 52. a. Neurogenic shock is sometimes caused by spinal injuries.

- 53. a. have the patient sit down and lean backwards.
 54. c. 1, 2, 3, 4
 55. d. Splinting swollen extremities